

"CONTAMINATION" CRITERIA

W. 1



SOIL 1) greater than native U.S. soil conc. average (Overcash, Dragun) or at conc. assuming 100% extraction would give TCLP level (i.e. Pb > 100 ppm)

H₂O 2) Volatiles - conc. > 10 x highest trip or field blank for common solvents:

- methylene chloride > 170 ug/L
- acetone > 530 ug/L

- conc. > 5 x highest trip or field blank for other detected compds

- ethylbenzene > 5 ug/L
- xylene > 20 ug/L
- hexane > 25 ug/L
- Cl₃F₃C₂ > 350 ug/L
- isopropanol > 400 ug/L

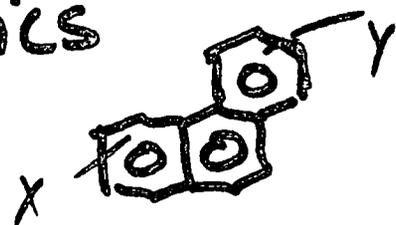
H₂O 3) semi volatiles - conc. in water > 10 x highest field blank conc. of phthalates or > 5 x other detected compd:

- phenol > 10 ug/L
- sulfur > 30 ug/L
- REMO - on soil

4) Metals : conc. in water exceeds
MCL/SMCL

5) water quality : conc. in water
exceeds MCL/SMCL
or $> 3 \times$ DL for bromide

Polynuclear Aromatics (PNAs)



- total of 14 compounds detected
- coal tar/asphalt derived

COMPOUNDS DETECTED

acenaphthene
fluorene
phenanthrene

anthracene
fluoranthene
pyrene

benzo(a)anthracene

chrysene

benzo(b)fluoranthene

benzo(k)fluoranthene

indeno(1,2,3 cd) pyrene

dibenzo(a,h)anthracene

benzo(ghi)perylene

benzo(a)pyrene

WASTE MASS GAS

- no detects of H_2S , CH_4
VOC's (0.1 ppm DL) in basements

TT05 10 VOAS detected above
on fill background, VC
TOTAL = 10,070 PP ng/L

TT10 9 VOAS detected above
on fill background, mostly freons, VC
TOTAL = 12,950 ng/L

FDTT16 4 VOAS detected
on fill TOTAL = 770 ng/L

TT07 - 1,1,1-TCA on fill

TT04 - toluene off fill - in woods

TT11 - TCE off road on berm

TT06 - toluene - cropland

Soil ORGANIC CARBON

range 810 - 14,159 ppm
dry weight

lowest GTO2B at 2-4'
sand-gravel upgradient well res.
102

highest Soil Boing B-10
73' - 174'
sand - silty clay

SURFACE WATER + SEDIMENT

FISH POND "L" shape: SDO1, SDO2, SDO3, SDO4
SSO1, SSO2, SSO3, SSO4

SDO1 - Trace TCE 1 ppb
SDO2 - Trace PCE 1 ppb
SDO3 - Trace TCA 1 ppb
PCB-Aroclor 1248 130 ppb
SS-Pb > AWQC 1.3 ppb

Small pond SDO5, SDO6, SDO7, SDO8
SSO5, SSO6, SSO7, SSO8

SSO7 - 476 ug/L Al
5080 ug/L Fe } above SMCL

SDO6 Trace CHCl₃ 0.7 ppb
SDO7 Trace xylene 1 ppb
SS-Pb > AWQC 1.3 ppb

QUARRY SDO9, SDO10, SDO11, SDO12
SSO9, SSO10, SSO11, SSO12

SDO9 benzoic acid 93 ppb
SDO10 benzoic acid 190 ppb
SSO12 Chromium 29 ppb exceeds
AWQC of 11 (chronic) 16 (acute)

SURFACE SOIL/CAP

Calcium levels 226,000 - 321,000 ppm

Volatiles - all trace levels

12-18" GS01 toluene 4 ppb, $Cl_3F_3C_2$ 30 ppb

6-18" GS02 $Cl_3F_3C_2$ 30 ppb

6-18" GS03 toluene 5 ppb, $Cl_3F_3C_2$ 9 ppb

6-14" GS06 1,1-DCE 5 ppb

12-15" GS07 toluene 2 ppb

4-18" FD GS11 toluene 3 ppb

4-8" GS12 toluene 5 ppb

Semivolatiles - all trace levels

6-14" GS06 1,4-dichlorobenzene 120 ppb

8-16" GS05 benzoic acid 75 ppb

3-18" GS09 1,4-dichlorobenzene 210 ppb

SUBSURFACE SOIL

GTO6 - well nest 106 OFF SITE

4-6' acetone 780 ppb CH₂Cl₂ 55 ppb CS₂ 30 ppb

8-10' BHP 4000 ppb

12-14' acetone 950 ppb CH₂Cl₂ 43 ppb

14-16' acetone 500 ppb toluene 43 ppb

→ source? to well nest I

GTO5 - well nest 105 OFF SITE

8-10' Cr 67 ppm

BHP 1,800 ppb

GTO1 - well nest 101 ON SITE, OFF known
fill area

6-8' BHP 6,600 ppb

(plastic noted in auger cuttings)

GROUNDWATER

Bromide (> 0.3 mg/L)

Shallow wells: 101A, 106A

Intermediate wells

101B onsite

M-2 onsite

Q-1 offsite

I-3 offsite

deep wells

101C onsite

E-3 onsite

GROUNDWATER

Volatile Organics

UPGRADIENT:

B-1 (int.)

THM 5-6 ug/L (ppb)

ONSITE: 10VA

ethyl ether (shallow)

chloroethane 12 ppb

DOWNGRADIENT:

10GA 1,2-DCE 6 ppb

ethyl ether

I-1 (deep)

acetone 270 ppb

N-1 (shallow) ethyl ether

Q-1 (shallow) ethyl ether

I-3 (int.)

acetone 240 ppb

— Contamination
not Himco

J-1 (int) TCE 42 ppb, TCA 3 ppb related

J-2 (shallow) TCE 18 ppb

GROUNDWATER

METALS

E-2/1 shallow

Arsenic 54 ppb

Chromium 133 ppb

Lead 106 ppb

Nickel 111 ppb

J-2 / shallow off site

Chromium 354 ppb

RESIDENTIAL WELLS



MCL exceedances / attainment

benzene - Kolanowski shallow

Cd - Rumfelt shallow
Kolanowski shallow

Cr - Kolanowski shallow

Pb - Rumfelt shallow
Kolanowski shallow

OTHER DETECTS:

ethyl ether { Kolanowski shallow, deep
Rumfelt shallow
Freeman deep - duplicate only
Geesaman deep
phenobarbital { Klein, Bowers

Kolanowski shallow
geesaman deep
Klein

Bromide

1.6 - 3.9 mg/L

Bowers

Kolanowski

Klein

geesaman

Residential well possible

fill leachate impacts

Rw05 - Kolanowski shallow

COD 247 mg/L

NH₃ 37 mg/L

TDS 1060 mg/L

TKN 64 mg/L

TSS 462 mg/L

WETLAND SOIL

WS01 - toluene 31 ppb
styrene 0.8 ppb

WS03 - phthalates 8,290 ppb

WS05 - CS₂ 0.8 ppb
TOTAL PNA 279-465 ppb

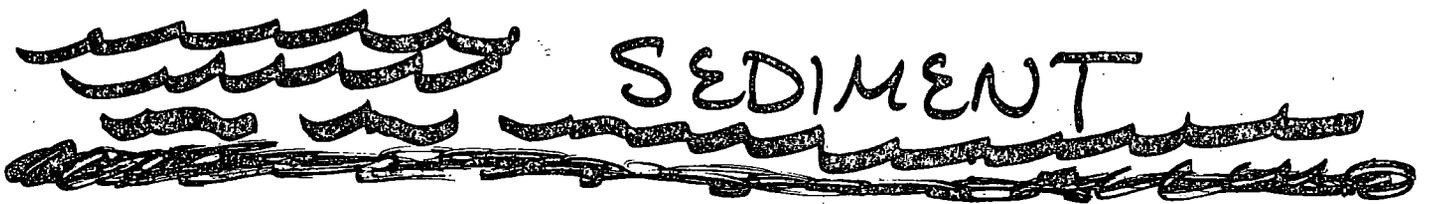
WS13 - T. PNA 12,994 ppb
Lead 74 ppm

WS15 - TCE 0.9 ppb
T. PNA 6,590 ppb
4,4'-DDT 64 ppb
Lead 77 ppm

WS16 - toluene 10 ppb
T. PNA 22,590 ppb
Lead 245 ppm
Copper 216 ppm
Cyanide 24 ppm

area of
Construction
debris

SURFACE WATER +



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